Amendments to Claims:

This listing of claims will replace all prior versions and listings of claims in the instant application:

Listing of Claims:

1.   (Currently Amended)   A method for monitoring and visualizing a plurality of metrics in a dynamic data space, the method comprising:

defining metrics, each of said defined metrics corresponding to at least one entity in the dynamic data space, wherein each entity is a network component;

defining a maximum and a minimum value for each of said metrics;

quantizing discrete levels between said defined maximum and said defined minimum value;

assigning a unique indicator to each of said quantized discrete levels;   ·

determining a value for each of said defined metrics and responsively determining said unique indicator corresponding to said value;

receiving a user selection of particular ones of said entities via a graphical user interface; and

providing graphical display representations of said unique indicators associated with said selected entities within a graphical user interface of a machine remotely located from said at least one entity, said graphical interface changing to reflect changes to said selections;

displaying within one section of the graphical user interface said graphical display representations in a manner as to illustrate relative communication relationships between the network components being monitored; and

2

{WP239268;1}

PAGE 2/23 * RCVD AT 7/7/2005 8:57:50 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID: * DURATION (mm-ss):07-54

simultaneously displaying within another section of the graphical user interface said determined values of said defined metrics associated with said selected entities.

2.   (Canceled)

3.   (Previously Presented)   The method according to claim 1, wherein said assigning step, comprises designating a user configurable unique indicator selected from the group consisting of a different color, a different shade and a different pattern to each of said quantized discrete level.

4.   (Previously Presented)   The method according to claim 1, wherein said step of determining said value comprises the steps of:

monitoring said at least one entity with at least one software agent remotely located from a machine upon which said graphical user interface resides; and

said software agents interrogating each said entity within the dynamic data space for said determined value.

5.   (Previously Presented)   The method according to claim 1, wherein said step of determining said value further comprises automatically updating said graphical display representations of said selected ones of said determined values in said graphical user interface.

6.   (Canceled)

7.   (Original)   The method according to claim 1, wherein said selected ones of said metrics are selected from a list of metrics displayed within said graphical user interface.

{WP239268;1}

8.   (Original)   The method according to claim 1, further comprising updating said graphical representations dynamically based upon subsequent value determinations.

9.   (Previously Presented)   The method according to claim 1, wherein said step of determining said value and said providing step are configurably periodic.

10.   (Currently Amended)   A method for visualizing metrics for at least one component in a heterogeneous content delivery network (CDN), the method comprising:

defining metrics characterizing the performance of the components in the CDN;

computing values for said defined metrics;

defining a maximum value and a minimum value for each of said defined metrics;

quantizing discrete levels between said defined maximum value and said defined minimum value;

assigning a unique indicator to each said quantized discrete level; and

providing a graphical display of said unique indicators associated with said computed values within a graphical user interface of a machine remotely located from the component, said graphical display displaying user selected ones of said defined metrics, said graphical display changing in response to changes in said computed values and changes occurring in said components;

displaying within one section of the graphical user interface said graphical display in a manner as to illustrate relative communication relationships between the components within the CDN that correspond to user selected ones of the defined metrics; and

simultaneously displaying within another section of the graphical user interface said computed values of said user selected ones of the defined metrics.

11.   (Original)   The method according to claim 10, wherein said defined metrics are selected from the group consisting of CPU load, run queue size, memory usage, connections, and disk I/O usage.

12.   (Canceled)

13.   (Previously Presented)   The method according to claim 10, wherein said assigning step, comprises designating a user configurable unique indicator selected from the group consisting of a different color, a different shade, and a different pattern to each of said quantized discrete level.

14.   (Previously Presented)   The method according to claim 10, wherein said computing step, comprises the steps of:

monitoring said at least one component with at least one software agent remotely located from a machine upon which said graphical user interface resides; and

said software agents interrogating each one of said components for said computed values.

15.   (Original)   The method according to claim 10, further comprising updating said graphical representations dynamically based upon subsequent value determinations.

16.   (Previously Presented)   The method according to claim 10, wherein said step of providing said graphical display, comprises:

providing a graphical representation of each one of said components, each one of said components represented by a node in said graphical display.

5

{WP239268;1}

PAGE 5/23 * RCVD AT 7/7/2005 8:57:50 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID: * DURATION (mm-ss):07-54

17.   (Original)   The method according to claim 10, wherein said defined metrics are selected from a list of metrics displayed within said graphical display.

18.   (Original)   The method according to claim 10, wherein said computing step and said providing step are configurably periodic.

19.   (Currently Amended)   A method for monitoring a component in a CDN, comprising:

selecting based upon user input at least one monitored metric corresponding to a component in the CDN;

determining a value for said selected metric;

assigning a discrete quantized level to said determined value based on a predefined maximum and a predefined minimum value for said selected metric;

computing a display indicator based on said assigned quantized level; and

providing said display indicator on a graphical display of a machine remotely located from the component, said display indicator providing a visual representation of said monitored metric for the component in the network;

displaying within one section of the graphical display said display indicator in a manner as to illustrate relative communication relationships between the component and other components in the CDN; and

simultaneously displaying within another section of the graphical user interface said determined values of said selected metrics.

20.   (Previously Presented)   The method according to claim 19, wherein said monitored metric is selected from the group consisting of a CPU load, a network capacity, a run queue size, a connection capacity, a memory usage, a page ins capacity, a disk I/O, and a reference count.

6

{WP239268;1}

PAGE 6/23 * RCVD AT 7/7/2005 8:57:50 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID: * DURATION (mm-ss):07-54

21.   (Original)   The method according to claim 19, wherein said display indicator is an indicator selected from the group consisting of a color, a shade of gray, and a pattern.

22.   (Canceled)

23.   (Currently Amended)   A system for monitoring of components in a CDN, comprising:

plurality of software agent for retrieving values for metrics from the components within a heterogeneous CDN;

a processor remotely located from said software agents for determining a user configurable graphical representation for each of said retrieved values, wherein different graphical representations are determined for different quantized ranges of said retrieved values; and

a graphical user interface of a machine remotely located from at least one of the components for presenting said determined graphical representation, said graphical user interface having a user selectable list of said metrics, said graphical user interface changing to reflect changes to said selections, wherein said graphical user interface includes a first display section for displaying the determined graphical representation in a manner as to illustrate relative communication relationships between the components within the heterogeneous CDN, and wherein the graphical user interface includes a second display section that is simultaneously displayed with the first display section, said second display section displaying said retrieved values.

24.   (Currently Amended)   A machine readable storage having stored thereon, a computer program having a plurality of code sections for visualizing a plurality of

7

{WP239268;1}

PAGE 7/23 * RCVD AT 7/7/2005 8:57:50 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID: * DURATION (mm-ss):07-54

metrics in a dynamic data space, said code sections executable by a machine for causing

the machine to perform the steps of:

defining metrics, each of said defined metrics corresponding to at least one entity

in the dynamic data space, wherein each entity is a network component;

defining a maximum and a minimum value for each of said metrics;

quantizing discrete levels between said defined maximum and said defined

minimum value;

assigning a unique indicator to each of said quantized discrete levels;

determining a value for each of said defined metrics and responsively determining

said unique indicator corresponding to said value;

receiving a user selection of particular ones of said entities via a graphical user

interface; ~~and~~

providing graphical display representations of said unique indicators associated

with said selected entities within a graphical user interface of a machine remotely located

from said at least one entity, said graphical interface changing to reflect changes to said

selections;

displaying within one section of the graphical user interface said graphical display

representations in a manner as to illustrate relative communication relationships between

the network components being monitored; and

simultaneously displaying within another section of the graphical user interface

said determined values of said defined metrics associated with said selected entities.

25.   (Canceled)

26.   (Previously Presented)   The machine readable storage according to claim 24,

wherein said assigning step, comprises designating a user configurable unique indicator

8

Appln. No. 09/865,368
Amendment dated July 7, 2005
Reply to Office action of March 7, 2005
Docket No. 6169-202

IBM Docket No. BOC9-2000-0066

selected from the group consisting of a different color, a different shade and a different pattern to each of said quantized discrete level.

27.   (Previously Presented)   The machine readable storage according to claim 24, wherein said step of determining said value comprises the steps of:

monitoring said at least one entity with at least one software agent remotely located from a machine upon which said graphical user interface resides; and

said software agents interrogating each said entity within the dynamic data space for said determined value.

28.   (Previously Presented)   The machine readable storage according to claim 24, wherein said step of determining said value further comprises automatically updating said graphical display representations of said selected ones of said determined values in said graphical user interface.

29.   (Canceled)

30.   (Original)   The machine readable storage according to claim 24, wherein said selected ones of said metrics are selected from a list of metrics displayed within said graphical user interface.

31.   (Original)   The machine readable storage according to claim 24, further comprising updating said graphical representations dynamically based upon subsequent value determinations.

9

{WP239268;1}

PAGE 9/23 * RCVD AT 7/7/2005 8:57:50 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID: * DURATION (mm-ss):07-54

32.   (Previously Presented)   The machine readable storage according to claim 24, wherein said step of determining said value and said providing step are configurably periodic.

33.   (Currently Amended)   A machine readable storage having stored thereon, a computer program having a plurality of code sections for monitoring a component in a CDN, said code sections executable by a machine for causing the machine to perform the steps of:

defining metrics characterizing the performance of the component in the CDN;

computing values for said defined metrics;

defining a maximum value and a minimum value for each of said defined metrics;

quantizing discrete levels between said defined maximum value and said defined minimum value;

assigning a unique indicator to each said quantized discrete level; and

providing a graphical display of said unique indicators associated with said computed values within a graphical user interface of a machine remotely located from the component, said graphical display displaying user selected ones of said defined metrics, said graphical display changing in response to changes in said computed values and changes occurring in said components;

displaying within one section of the graphical user interface said graphical display in a manner as to illustrate relative communication relationships between the components within the CDN that correspond to user selected ones of the defined metrics; and

simultaneously displaying within another section of the graphical user interface said computed values of said user selected ones of the defined metrics.

10

{WP239268;1}

PAGE 10/23 * RCVD AT 7/7/2005 8:57:50 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID: * DURATION (mm-ss):07-54

Appln. No. 09/865,368
Amendment dated July 7, 2005
Reply to Office action of March 7, 2005
Docket No. 6169-202

IBM Docket No. BOC9-2000-0066

34.   (Original)   The machine readable storage according to claim 33, wherein said defined metrics are selected from the group consisting of CPU load, run queue size, memory usage, connections, and disk I/O usage.

35.   (Canceled)

36.   (Previously Presented)   The machine readable storage according to claim 33, wherein said assigning step, comprises designating a user configurable unique indicator selected from the group consisting of a different color, a different shade, and a different pattern to each of said quantized discrete level.

37.   (Previously Presented)   The machine readable storage according to claim 33, wherein said computing step, comprises the steps of:

monitoring said at least one component with at least one software agent remotely located from a machine upon which said graphical user interface resides; and

said software agents interrogating each one of said components for said computed values.

38.   (Original)   The machine readable storage according to claim 33, further comprising updating said graphical representations dynamically based upon subsequent value determinations.

39.   (Previously Presented)   The machine readable storage according to claim 33, wherein said step of providing said graphical display, comprises:

providing a graphical representation of each one of said components, each one of said components represented by a node in said graphical display.

11

40.   (Original)   The machine readable storage according to claim 33, wherein said defined metrics are selected from a list of metrics displayed within said graphical display.

41.   (Original)   The machine readable storage according to claim 33, wherein said computing step and said providing step are configurably periodic.

42.   (Currently Amended)   A machine readable storage having stored thereon, a computer program having a plurality of code sections for monitoring a component in a CDN, said code sections executable by a machine for causing the machine to perform the steps of:

selecting based upon user input at least one monitored metric corresponding to a component in the CDN;

determining a value for said selected metric;

assigning a discrete quantized level to said determined value based on a predefined maximum and a predefined minimum value for said selected metric;

computing a display indicator based on said assigned quantized level; and

providing said display indicator on a graphical display of a machine remotely located from the component, said display indicator providing a visual representation of said monitored metric for the component in the network;

displaying within one section of the graphical display said display indicator in a manner as to illustrate relative communication relationships between the component and other components in the CDN; and

simultaneously displaying within another section of the graphical user interface said determined values of said selected metrics.

43.   (Previously Presented)   The machine readable storage according to claim 42, wherein said monitored metric is selected from the group consisting of a CPU load, a

12.

{WP239268;1}

PAGE 12/23 * RCVD AT 7/7/2005 8:57:50 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID: * DURATION (mm-ss):07-54

network capacity, a run queue size, a connection capacity, a memory usage, a page ins capacity, a disk I/O, and a reference count.

44.   (Original)   The machine readable storage according to claim 42, wherein said display indicator is an indicator selected from the group consisting of a color, a shade of gray, and a pattern.

45.   (Canceled)

46.   (Previously Presented)   The method of claim 1, wherein said a maximum and minimum values are user configurable values.

13

{WP239268;1}

PAGE 13/23 * RCVD AT 7/7/2005 8:57:50 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID: * DURATION (mm-ss):07-54